

CLAIMS

1. A plasma display panel comprising a first plate (11) and a second plate (12) leaving between them a space filled with a discharge gas and partitioned into a number of discharge cells (18) that are arranged in rows and columns, which also includes an array of insulating barrier ribs comprising barrier ribs (15) each separating two adjacent columns of cells and each having a base resting on the said second plate and a top in contact with the said first plate, this first plate including at least two arrays of coplanar electrodes (Y, Y') called sustain electrodes, which are oriented along general directions that are parallel to one another and to the said rows, which are placed so that each discharge cell is traversed by an electrode of each array, therefore forming a pair, and which have edges called initiation edges (191) which face one another on either side of the gap separating the electrodes of each pair, characterized in that each column separation barrier rib comprises, at its top and over its entire width, a succession of low-permittivity regions (15b; 15c) that extend at least on each side of the gap separating the electrodes of each pair, at least starting from a line located 80  $\mu\text{m}$  to the rear of the initiation edges (191) of the electrodes of this pair, and which have a thickness ( $D_b$ ;  $D_c$ ) of greater than 3  $\mu\text{m}$  but not exceeding one fifth of the total height of the said barrier ribs, and a mean dielectric permittivity ( $E_b$ ,  $E_c$ ) at least three times smaller than the dielectric permittivity ( $E_a$ ) of the said barrier ribs measured at their base.

2. The panel as claimed in claim 1, characterized in that said coplanar electrodes (Y, Y') each have a constant width over their entire useful length.

3. The panel as claimed in claim 1 or 2, characterized in that the succession of low-

permittivity regions at the top of each barrier rib forms a continuous low-permittivity region.

4. The panel as claimed in claim 1 or 2, characterized in that, at the top of each barrier rib separating two columns, the low-permittivity regions are discontinuous and interrupted at the gap separating the electrodes of each pair.

5. The panel as claimed in any one of the preceding claims, characterized in that the thickness of said low-permittivity regions is at least equal to 5  $\mu\text{m}$ .

6. The panel as claimed in any one of the preceding claims, characterized in that said column separating ribs furthermore have high-permittivity intermediate regions ( $15_c'$ ) that are intermediate between the base of the barrier ribs and said low-permittivity regions and which have a thickness ( $D'_c$ ) greater than the thickness of said low-permittivity regions and a mean dielectric permittivity ( $E'_c$ ) greater than the dielectric permittivity ( $E_a$ ) of said barrier ribs measured at their base.

7. The panel as claimed in any of the preceding claims, characterized in that said coplanar electrodes ( $Y, Y'$ ) are coated with a dielectric layer (13) and which a protective/secondary-electron-emissive layer (14).

8. The panel as claimed in any one of the preceding claims, characterized in that said second plate (12) includes a third array of electrodes ( $X$ ) called address electrodes, each placed on a column of cells.

9. The panel as claimed in any one of the preceding claims, characterized in that said array of barrier ribs also includes barrier ribs (16) each separating two adjacent rows of cells.

10. The panel as claimed in any one of the preceding claims, characterized in that said barrier ribs have a height of at least 100  $\mu\text{m}$ .